

**CLAIMS**

1. A method of authenticating communications,  
the method comprising:

5 using a mobile communications device, which  
includes a cryptographic module for use in mobile  
communication, as an authentication token.

2. A method of authenticating communications as  
claimed in claim 1, wherein the mobile communications  
device is a WAP-enabled device.

10 3. A method of authenticating communications as  
claimed in claim 1 or 2, wherein the use of the mobile  
communications device as an authentication token  
includes using public key encryption of communications.

15 4. A method of authenticating communications as  
claimed in claim 1, 2 or 3, wherein the mobile  
communications device uses the cryptographic module for  
Wireless Transport Layer Security communications.

20 5. A method of authenticating communications as  
claimed in claim 1, 2, 3 or 4, wherein the mobile  
communications device is used as an authentication  
token for a computer, and authenticates communications  
between the computer and an authentication server.

25 6. A method of authenticating communications as  
claimed in claim 5, comprising providing a wired  
connection between the mobile communications device and  
the computer.

30 7. A method of authenticating communications as  
claimed in claim 5, comprising providing a wireless  
connection between the mobile communications device and  
the computer.

8. A mobile communications device, comprising a  
cryptographic module, the cryptographic module being  
usable:

35 (a) for encoding wireless communications from the  
device;

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(b) for authenticating a user of the device towards an authentication server.

5 9. A mobile communications device as claimed in claim 8, the cryptographic module being usable for authenticating a user of a separate computer towards the authentication server.

10 10. A mobile communications device as claimed in claim 9, having a short-range wireless communications transceiver, for sending signals to and receiving signals from the computer.

11. A mobile communications device as claimed in claim 10, wherein the short-range wireless communications transceiver uses Bluetooth wireless technology.

15 12. A mobile communications device as claimed in one of claims 8-11, wherein the cryptographic module is usable to support wireless communications using Wireless Transport Layer Security.

20 13. A mobile communications device as claimed in one of claims 8-12, having means for allowing biometric identification of a user.

14. A mobile communications device as claimed in one of claims 8-13, wherein the cryptographic module uses public key cryptography.

25 15. A mobile communications device as claimed in one of claims 8-14, comprising means for sending and transmitting data using WAP.

30 16. A mobile communications device as claimed in one of claims 8-15, wherein the cryptographic module is realised in hardware in the device.

17. A mobile communications device as claimed in one of claims 8-15, wherein the cryptographic module is realised in software in the device

35 18. A mobile communications device as claimed in one of claims 8-15, wherein the cryptographic module is

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provided on an external smart card.

19. A mobile communications device as claimed in one of claims 8-15, wherein the cryptographic module comprises a Wireless Identity Module (WIM) card.

5 20. A mobile communications device as claimed in claim 19, wherein the cryptographic module comprises a Wireless Identity Module (WIM) card which allows communications using Wireless Transport Layer Security.

10 21. A WAP-enabled mobile communications device, which is capable of use as an authentication token.

22. A communications network, comprising:

at least one WAP gateway, which is enabled to encrypt communications on the basis of Wireless Transport Layer Security;

15 at least one authentication server operable in a first authentication protocol; and

a WAP-enabled client device, including a cryptographic module, the cryptographic module being usable for encrypting communications with the WAP gateway using Wireless Transport Layer Security, and the cryptographic module being further usable as an authentication token for authenticating a user of the device towards the authentication server, using the first authentication protocol.

25 23. A network as claimed in claim 22, wherein the cryptographic module is realised in hardware in the client device.

30 24. A network as claimed in claim 22, wherein the cryptographic module is realised in software in the client device.

25. A network as claimed in claim 22, wherein the cryptographic module is provided on an external smart card.

35 26. A network as claimed in claim 22, wherein the cryptographic module comprises a Wireless Identity

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Module (WIM) card.

27. A network as claimed in any of claims 22-26,  
comprising a computer, the client device having a  
connection to the computer such that it acts as an  
authentication token therefor.

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